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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,704	03/09/2004	Toru Takayama	10873.1414US01	2943
53148 7590 03/15/2007 HAMRE, SCHUMANN, MUELLER & LARSON P.C. P.O. BOX 2902-0902 MINNEAPOLIS, MN 55402			EXAMINER FLORES RUIZ, DELMA R	
			ART UNIT	PAPER NUMBER
			2828	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/15/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/796,704	<b>Applicant(s)</b> TAKAYAMA, TORU	
	<b>Examiner</b> Delma R. Flores Ruiz	<b>Art Unit</b> 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 6,7 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6,7 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/6/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The examiner has been considered the information disclosure statement (IDS) submitted on 02/06/2007.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

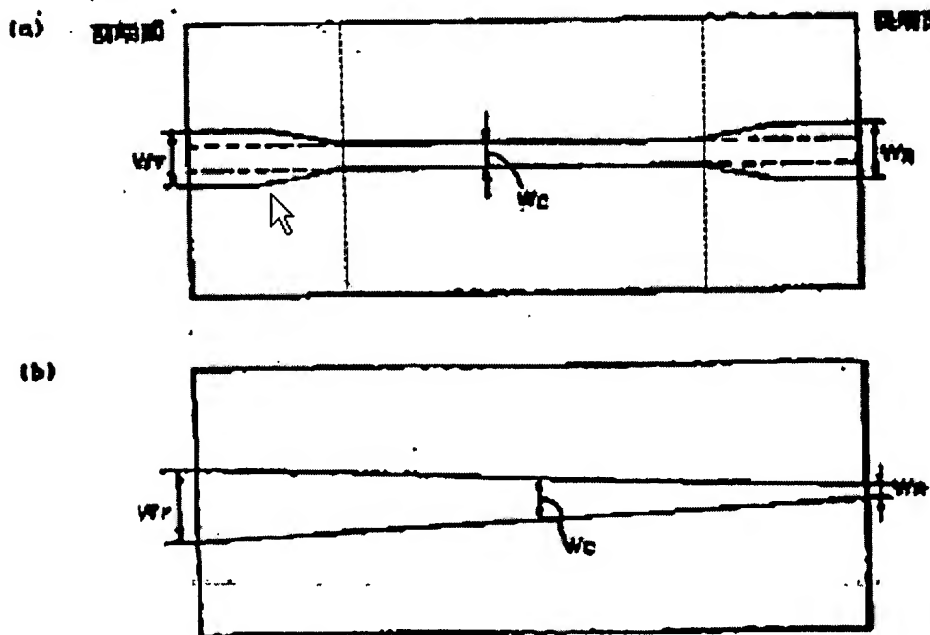
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

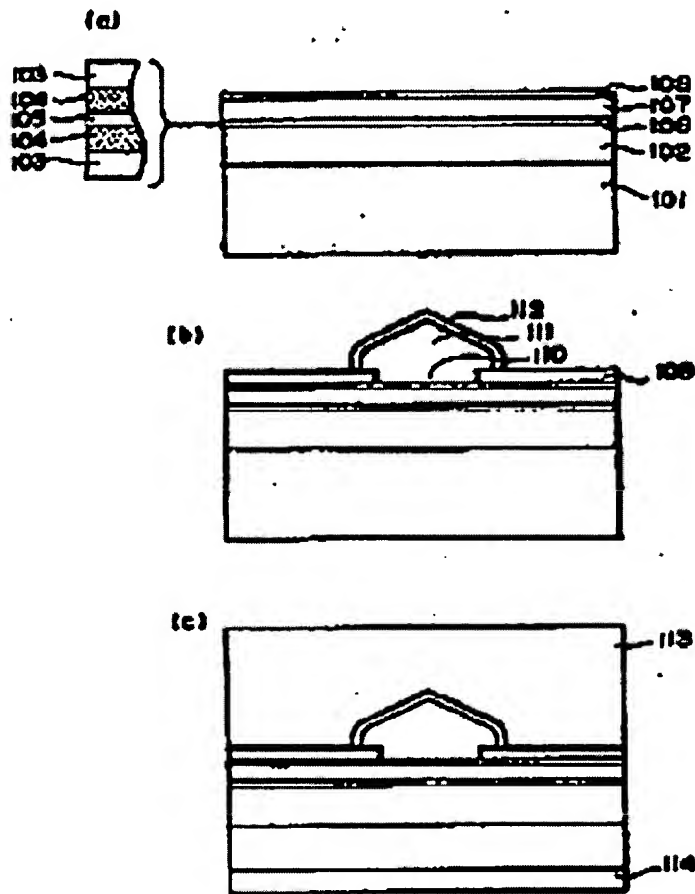
Claims 6, 7 and 16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Shimoyama Kenji (JP 2000-312052).

***Regarding claim 6***, Shimoyama shown in Figures 1 – 3, discloses a semiconductor laser device formed on a tilted substrate (see Fig. 1A Character 101 and Paragraph [0049]) composed of a compound semiconductor, comprising an active layer (see Fig. 1A Character 106) and two cladding layers (see Fig. 1A and 1B Characters 102 and 110) interposing the active layer therebetween, wherein one of the cladding

layers (see Fig. 1B, Character 110 and Paragraph [0048-0049]) forms a mesa-shaped (see Fig. 1B, Character 110, Paragraphs [005-0056], the reference call "stripe-like opening") the ridge includes a first region (see Fig. 3a, Character  $W_F$ ) where a width of a bottom portion of the ridge is substantially constant, and a second region (see Fig. 3a, Characters  $W_C$ ) where the width of the bottom portion of the ridge is varied continuously, and the second region is placed between the first region and an end face (see Fig. 3a, Character  $W_R$ ) in an optical path, and at a boundary between the first region and the second region, the width of the bottom portion of the ridge in the first region is substantially the same as that in the second region (see Fig. 3a, Character  $W_C$ ).



【図 1】



**Regarding claim 7,** Shimoyama shown in Figures 1 – 3, discloses a semiconductor laser device formed on a tilted substrate (see Fig. 1A Character 101) composed of a compound semiconductor, comprising an active layer (see Fig. 1A Character 106) and two cladding layers (see Fig. 1A and 1B Characters 102 and 110) interposing the active layer therebetween, wherein one of the cladding layers (see Fig. 1B Character 110 and Paragraph [0048-0049]) forms a mesa-shaped (see Fig. 1B, Character 110, Paragraphs [005-0056], the reference call “stripe-like opening”) the ridge

includes a first region (see Fig. 3a, Character  $W_F$ ) where a width of a bottom portion of the ridge is substantially constant, and a second region (see Fig. 3a, Characters  $W_C$ ) where the width of the bottom portion of the ridge is varied continuously, and the second region is placed between the first region and an end face (see Fig. 3a, Character  $W_R$ ) in an optical path, and a difference between the width of the bottom portion of the ridge in the first region (see Fig. 3a, Character  $W_F$ ) and a maximum value of the width of the bottom portion of the ridge in the second region (see Fig. 3a, Characters  $W_C$ ) is  $0.5\ \mu\text{m}$  or less (Paragraph [0027-0028]).

**Regarding claim 16**, Shimoyama shown in Figures 1 – 3, discloses a semiconductor laser device formed on a tilted substrate (see Fig. 1A Character 101) composed of a compound semiconductor, comprising an active layer (see Fig. 1A Character 106) and two cladding layers (see Fig. 1A and 1B Characters 102 and 110) interposing the active layer therebetween, wherein one of the cladding layers (see Fig. 1B Character 110, and Paragraph [0048-0049]) forms a mesa-shaped (see Fig. 1B, Character 110, Paragraphs [0026-0027 and 0055-0056], the reference call “stripe-like opening”) the ridge includes a first region (see Fig. 3a, Character  $W_F$ ) where a width of a bottom portion of the ridge is substantially constant, and a second region (see Fig. 3a, Characters  $W_C$ ) where the width of the bottom portion of the ridge is varied continuously,

and the second region is placed between the first region and an end face (see Fig. 3a, Character  $W_R$ ) in an optical path, and end face in an optical path, and a length of the first region is 10% to 50% with respect to a resonator length (Paragraph [0058-0059]).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



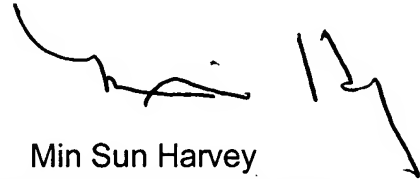
Delma R. Flores Ruiz

Examiner

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DRFR/MH

February 27, 2007



Min Sun Harvey

Supervisor Patent Examiner

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